

REMARKS

Status

This Amendment is responsive to the Office Action dated September 18, 2008, in which Claims 1-18 and 21-27 were rejected and Claims 19-20 were objected to. Claim 19 has been amended; and new Claim 28 has been added. Accordingly, Claims 1-28 are pending in the application, and are presented for reconsideration and allowance.

Claim Rejections - 35 USC 102 and 35 USC 103

Claims 1-10, 15-18, and 21-27 stand rejected under 35 USC 102 as being anticipated by US Application Publication No. 2002/0097902 (Roehrig 902). This rejection is respectfully traversed.

Claims 11-14 stand rejected under 35 USC 103 as being unpatentable over USPA Pub. No. 2002/0097902 (Roehrig 902) as applied in claims 1-10, 15-18, and 21-27, and further in view of US Patent No. 7,054,473 (Roehrig 473). This rejection is respectfully traversed.

According to the claimed invention, a method and system is provided for displaying the results of a computer aided detection (CAD) analysis of a digital image. A digital image is analyzed using CAD analysis to identify one or more CAD-detected abnormalities. One or more coded descriptors for the CAD-detected abnormalities are generated, the coded descriptors providing information on one or more criteria used by the CAD analysis to identify the CAD-detected abnormalities. The digital image and the one or more coded descriptors are displayed. A problem to be solved by the invention is how to display a digital image with marked regions identified by CAD analysis as abnormalities along with the process used in the analysis. The solution to the problem is to display coded descriptors providing information on one or more criteria used by the CAD analysis. An advantage is that the user is provided with the CAD analysis criteria. Thus the information regarding the contribution of different features and criteria to the CAD results are displayed and provide the user with an appreciation of the criteria used by the CAD analysis to arrive at the determination of whether a suspicious region is diseased or not. The invention

defined by claim 28 adds the further feature that the coded descriptor also includes the step within the CAD analysis at which the criteria was used. Since different CAD analysis algorithms may use the same criteria and features, but in a different sequence of steps, knowing the step sequence of criteria provides the user with the ability to evaluate the efficacy of the CAD analysis procedure.

Neither of the references anticipate or make obvious the claimed invention. Roehrig 902 discloses a CAD method in which probability values, in numerical form and/or analog form are added to locational markers of CAD-detected suspected abnormalities in a displayed digital image. (“an assessment of the probability, likelihood, or predictive value of the CAD-detected suspected abnormalities”, Roehrig 902, Abstract, lines 3-4; “probability values” Roehrig 902, par. [0056], line 5; “relative probability value”, Roehrig 902, par. [0059], line 8). Use of a probability value by itself in Roehrig 902 is no indication of the criteria or features used by the CAD analysis to determine the probability. The use of a probability value by itself cannot anticipate or make obvious the coded descriptors of the claimed invention which provide information on one or more criteria used by the CAD analysis to identify the CAD-detected abnormalities. The use of a probability value by itself cannot anticipate or make obvious the coded descriptors of the claimed invention of claim 28 that provide information of the step within the CAD analysis at which such criteria are used.

Roehrig 473 discloses “a method and apparatus for analyzing a medical image obtained from one of a plurality of modalities, the method comprising normalizing the medical image to create a uniform display quality regardless of the original modality of the image”. (Roehrig 473, col. 1, lines 49-53). There is no disclosure in this patent of generating one or more coded descriptors for said CAD-detected abnormalities wherein said coded descriptors provide information on one or more criteria used by said CAD analysis to identify said CAD-detected abnormalities, as in the claimed invention. The features defined in claims 11-14 are directed to such a method. There is no disclosure in this patent of using the claimed features in a method or system of generating one or more coded descriptors for said CAD-detected abnormalities wherein said

coded descriptors provide information on one or more criteria used by said CAD analysis to identify said CAD-detected abnormalities.

Clearly claims 1 -18 and 21– 28 are novel and nonobvious over Roehrig 902 and Roehrig 473 and should be allowed.

Allowable Subject Matter

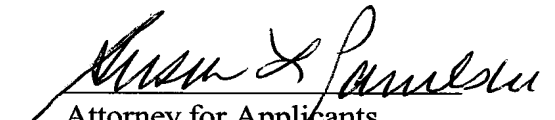
Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 19 has been amended to include the subject matter of claims 1 and 10 and is therefore deemed to be allowable. Claim 20 is dependent from allowable claim 19 and is therefore also deemed to be allowable. Reconsideration and withdrawal of this objection is therefore respectfully requested and allowance of claims 19 and 20 respectfully solicited.

Summary

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,


Attorney for Applicants
Registration No. 39,324

Susan L. Parulski/law
Carestream Health, Inc.
Rochester, NY 14608
Telephone: 585/627-6716
Facsimile: 585/627-8919

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Carestream Health, Inc. at 585/627-6687 or 585/627-6740.